Amdt. dated August 30, 2007

Reply to Office Action of August 10, 2007

Attorney Docket No. 1217-052603

Amendments to the Specification:

In the Abstract:

Please replace the Abstract at page 35 with the following rewritten Abstract. A clean copy of the replacement Abstract is attached hereto as a separate page.

-- ABSTRACT OF THE DISCLOSURE

The present—invention—provides—a—precess A—process for preparing a fluorine-containing copolymer by an emulsion polymerization method in the presence of aqueous ammonia as a pH modifier, and a molded article obtainable by melt molding or crosslinking molding the fluorine-containing copolymer. In preparing the fluorine-containing copolymer by coagulation of the fluorine-containing copolymer contained in a fluorine-containing copolymer dispersed aqueous solution, it is preferred to use a cationic surfactant and a water soluble organic solvent as a coagulating agent used for the above coagulation. The above surfactant is preferably represented by the formula (R₄N*)X' wherein R is an alkyl group of 1 to 22 carbon atoms, a fluoroalkyl group obtainable by fluorine substituting at least a part of hydrogen atoms present in the above alkyl group or hydrogen, four R's may be the same or different provided that they are not hydrogen atoms simultaneously, and X is a halogen atom. Furthermore, the present invention provides a The process for preparing a fluorine-containing copolymer having—a—decreased provides a decrease in a concentration of metal elements, which will be act as an impurity source, for example, having a metal element concentration of not more than 1 ppm.—

In the Specification:

Please replace the paragraph beginning at page 1, line 10, with the following rewritten paragraph:

-- The present invention, further, relates invention further relates to a fluorine-containing copolymer having a lowered concentration of metal elements, which will be an impurity source, and suitable for uses, for example, for transportation rolls, sealing materials, hoses, tubes and the like in the filed field of liquid crystal and semiconductor production apparatuses, or polymer matrixes for forming polymer electrolytes of lithium secondary batteries in the electric field, and also relates to cross-linking (vulcanization) molded articles thereof. --

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Please replace the paragraph beginning at page 2, line 7, with the following rewritten paragraph:

-- In the liquid crystal and semiconductor production processes, impurities contained in the above molded articles formed from the fluorine-containing copolymers such as metal elements and the like are called as particles called particles and cause wafer surface contamination and thereby induce product defectiveness defects. Therefore, the removal of metal elements remained remaining is an important subject in view of with the view of improving the yield of products. --

Please replace the paragraph beginning at page 4, line 12, with the following rewritten paragraph:

-- In the case of preparing the fluorine containing copolymer in an elastomer region, it is advantageous to employ the emulsion polymerization method in viewpoint of in view of the reactivity of the fluorine containing monomers and batch efficiency thereof. --

Please replace the paragraph beginning at page 5, line 6, with the following rewritten paragraph:

-- The present invention further provides a fluorine containing copolymer suitable fer uses, for example, <u>for</u> transportation rolls, sealing materials, hoses, tubes and the like in the filed <u>field</u> of liquid crystal and semiconductor production apparatuses, or polymer matrixes for forming polymer electrolytes of lithium secondary batteries in the electric field, wherein the uses are obtainable by melt molding or vulcanization (cross-linking) molding the fluorine containing copolymer prepared by the above method and have a lowered concentration of metal elements. --

Please replace the paragraph beginning at page 7, line 12, with the following rewritten paragraph:

-- The molded articles obtainable by melt molding or vulcanization (cross-linking) molding the fluorine containing copolymer prepared by the above method, have method have a lowered concentration of metal elements and are suitable for uses, for example, for transportation rolls, sealing materials, horses hoses, tubes and the like in the filed of liquid crystal and semiconductor production apparatuses, or polymer matrixes for forming polymer electrolytes of lithium secondary batteries in the electric field. --

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Please replace the paragraph beginning at page 10, line 8, with the following rewritten paragraph:

-- Examples of the initiator (polymerization initiator) used herein may include peroxides (for example, inorganic peroxides such as ammonium peroxodisulfate and the like, and organic peroxides such as dialkyl peroxide and the like) and redox type water-soluble initiators. Now, it is desirable to no use to not use peroxides for polymerization initiators containing metal elements (for example, sodium peroxodisulfate, potassium peroxodisulfate and the like) from the viewpoint of preparing the fluorine containing copolymer in which the metal element content is lowered. --

Please replace the paragraph beginning at page 10, line 18, with the following rewritten paragraph:

-- Preferable examples of the anionic surfactant used as an emulsifier in the emulsion polymerization may include anionic surfactants no-centaining not containing metal elements, such as ammonium perfluorooctanate (NH₄*[C₇F₁₅COO]), ammonium perfluorononanoate (NH₄*[C₈F₁₇COO]) and ammonium perfluoroheptanoate (NH₄*[C₈F₁₃COO]). --

Please replace the paragraph beginning at page 14, line 5, with the following rewritten paragraph:

-- Specific examples of the cationic surfactants may include lauryl trimethyl ammonium chloride, dodecyl trimethyl ammonium chloride, stearyl trimethyl ammonium chloride, distearyl dimethyl ammonium chloride, monoethanol amide stearate, lauryl amine acetate, etrearyl stearyl amine acetate, and further, perfluoroalkyl-trimethyl-ammonium chlorides ([CnF_{2n+1}(CH₃)₃N]* ·Cl wherein n is an integer of about 1 to 22) obtainable by fluorinating these alkyl groups directly bonded to N atom in the above cationic surfactants. --

Please replace the paragraph beginning at page 14, line 21, with the following rewritten paragraph:

-- If a coagulating agent containing a metal compound, for example, metal salts (such as calcium chloride, sodium chloride or potassium alum) is used in place of the above cationic surfactant, the content of metal impurities in the fluorine containing copolymer are increased is increased in spite of the coagulation methods such as the freeze coagulation method or the like referred to referred to in Comparative Examples 1 to 3 as described later.

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Please replace the paragraph beginning at page 16, line 3, with the following rewritten paragraph:

Of these water soluble organic solvents, alcohols such as methanol, ethanol, isopropanol and the like are preferred, and further, linear or branched aliphatic alcohols having 1 to 10 carbon atoms, particularly having 1 to 5 carbon atoms, are preferred in viewpoint from the viewpoint of compatibility with the above cationic surfactants. --

Please replace the paragraph beginning at page 20, line 8, with the following rewritten paragraph:

-- In crosslinking (vulcanization) of the unvulcanized fluorine containing copolymer, for example, as shown in Example 3 described later, it is considered that the crosslinking is formed in such a manner that carbon-carbon double bond sites (CH₂=CH−) in triallyl isocyanate used as the vulcanization assistant are opened, bromines (Br) present in the crosslinking sites in the unvulcanized fluorine containing copolymer are pull—out pulled out using an organic peroxide such as 2,5-dimethyl-2,5-di(tert-butylperoxy) hexane and the like as a vulcanizing agent and the plural sites in the copolymer in which Br's are pull—out pulled out are linked each other linked to each other using a polyfunctional monomer such as triallyl isocyanate and the like as a crosslinking assistant (vulcanization assistant), and as a result, desired vulcanization (crosslinking) molded articles are prepared. --

Please replace the paragraph beginning at page 20, line 23, with the following rewritten paragraph:

-- The resulting molded articles are suitably used for transportation rolls, sealing materials, horses hoses, tubes and the like in the filed field of liquid crystal and semiconductor production apparatuses, or polymer matrixes for forming polymer electrolytes of lithium secondary batteries in the electric field, because the content of any of the metal elements contained in the resulting molded articles is decreased to usually not more than 2 ppm, particularly not more than 1 ppm. --